

REMARKS

This application contains claims 1-30. Claims 1, 13, 25, 26, 28 and 29 are hereby amended. No new matter has been introduced. Reconsideration is respectfully requested.

Claims 25-30 were rejected under 35 U.S.C. 101 for being directed to non-statutory subject matter. Applicant has amended independent claims 25, 26, 28 and 29 in order to overcome this rejection. In view of this amendment, all of the claims in this application are believed to meet the requirements of 35 U.S.C. 101.

Claims 1-3, 6-10, 13-15, 18-22 and 25-30 were rejected under 35 U.S.C. 103(a) over Rawat et al. (U.S. Patent 6,662,340) in view of Lee et al. (U.S. Patent 6,535,883). Applicant has amended independent claims 1, 13, 25, 26, 28 and 29 in order to clarify the distinction of the present invention over the cited art. The amended claim language is literally supported in the specification. (See, for example, paragraph 0005 in the published version of this application, US 2002/0111961.)

Claim 1, as amended, recites a method for processing a document after contents have been filled into the fields on the document. Labels are provided for assignment to the fields, along with rules applicable to the contents of the respective fields to which the labels will be assigned. In other words, if a given label is assigned to a certain field, then the contents of that field should obey the corresponding rule. The actual assignment of the labels to the fields, however, is not necessarily known in advance.

In order to assign the labels to the fields, contents of the fields are tested against the rules. An assignment of a label to a field can generally be considered correct only if the contents of the field satisfy the applicable rule for that label. The testing therefore attempts to find an assignment of the labels to the fields that satisfies the rules. The claimed invention thus permits the labels of the fields to be identified automatically based on the field contents, rather than relying on explicit labeling or other identification of the fields in the document itself.

There is a basic difference between the claimed approach and all techniques used in the prior art:

- In prior art techniques, labels are first assigned to the fields, and then the field contents are processed according to the labels. The prior art assumes that labels must be available as a reference in order to determine what to do with the field contents.

- In the method of claim 1, however, the field contents themselves are used in determining the labels that are to be assigned to the fields. The contents serve as the reference for the labels, in direct opposition to the conventional paradigm in which the labels serve as the reference for the field contents.

There is nothing in the prior art that would have suggested this paradigm switch.

Turning to the cited references, Lee describes a system and method for creating validation rules for confirming input data. Validation rules are associated with corresponding field names and are used to test the contents of each field entered by the user to ensure that the field is filled out correctly (col. 2, lines 30-35). In other words, Lee assumes that the field name that is assigned to a given field is known, and on this basis applies the appropriate rules to validate the contents of that field.

Rawat describes a “client-side form filler,” which automatically fills out fields of forms in a document. For this purpose, a software application examines label text on the form, and uses the label to map the user data to the appropriate form field (abstract). Thus, Rawat, too, is faithful to the conventional paradigm of first assigning a label, and then processing field contents (in this case, filling in the field contents). Rawat also describes methods for labeling unlabeled fields based on context, visual cues, and the form’s underlying markup code (abstract), but nowhere does he depart from the conventional paradigm: the field label must always be determined before the contents can be filled in.

As Applicant has pointed out previously (and the Examiner has evidently agreed), Rawat was filed after the present patent application and is thus effective as prior art only to the extent that U.S. Patent 6,981,028, from which Rawat claims priority, discloses the cited subject matter. The ‘028 Patent describes a method for “mapping” forms to determine their structure and the fields they contain (col. 12, lines 24-37, cited by the Examiner). Once the form is mapped, user information may be filled into the proper fields in the appropriate format (col. 13, lines 17-21). Thus, again, in the ‘028 Patent, the fields must be identified before information is inserted in the fields.

In the “Response to Arguments” section of the present Official Action, the Examiner pointed out that the ‘028 Patent also deals with situations in which the field names may be ambiguous (pages 9-10 in the Official Action, citing col. 13, lines 5-54, in the ‘028 Patent). The

Examiner went on to state that “assigning a dynamic field name requires examining the contents or structure of the document.” The cited passage does indeed refer to form structure, but there is no mention or suggestion anywhere in the ‘028 Patent that the contents of a document might be used in assigning a field name. On the contrary, the ‘028 Patent states that the server can only “fill the fields which can be identified. The extent to which completion of the form is possible is based largely upon what can be identified with certainty or readily inferred from the HTML structure” (col. 15, lines 39-45).

Thus, to summarize, neither Lee, nor Rawat, nor the ‘028 Patent teaches or suggests the notion of assigning labels to fields by testing the contents that have been filled into the fields against rules applicable to the labels, as required by independent claims 1, 13 and 25 in this patent application. These independent claims are therefore believed to be patentable over the cited art. In view of the patentability of these independent claims, dependent claims 2, 3, 6-10, 14, 15, 18-22 and 30 are also believed to be patentable.

Claims 26-29 recite a method, apparatus and computer software product for computerized data processing using geometrical rules that indicate an expected geometrical relationship between two or more filled-in fields in a form. These rules are used in assigning labels to the fields based on information that has been filled into the fields. Independent claims 26, 28 and 29 have been amended in like manner to claims 1, 13 and 25. Therefore, claims 26-29 are believed to be patentable over the cited art for the reasons explained above.

Dependent claims 4, 5, 11, 12, 16, 17, 23 and 24 were rejected over Rawat in view of Hetherington (U.S. Patent Application Publication 2002/0010714) or Gupta et al. (U.S. Patent 6,199,079). In view of the patentability of independent claims 1 and 13, from which these claims depend, claims 4, 5, 11, 12, 16, 17, 23 and 24 are also believed to be patentable.

Notwithstanding the patentability of the independent claims in this application, the dependent claims are also believed to recite independently-patentable subject matter. For the sake of brevity, however, Applicant will refrain from arguing the independent patentability of the dependent claims at present.

Applicant believes the amendments and remarks presented hereinabove to be fully responsive to all of the grounds of rejection raised by the Examiner. In view of these amendments

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Amendment dated December 11, 2006
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and remarks, Applicant respectfully submits that all of the claims in the present application are in order for allowance. Notice to this effect is hereby requested.

Dated: December 11, 2006

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